

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 54888PCT8A	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/US 00/17457	International filing date (day/month/year) 23/06/2000	(Earliest) Priority Date (day/month/year) 02/07/1999
Applicant 3M INNOVATIVE PROPERTIES COMPANY et al.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing:



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of Invention is lacking** (see Box II).

4. With regard to the **title**,

the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.



as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.

1



None of the figures.

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C09J7/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C09J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
WPI Data, EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>✓ DATABASE WPI Section Ch, Week 197435 Derwent Publications Ltd., London, GB; Class A18, AN 1974-62357V XP002149248 & JP 49 029613 B (SEKISUI CHEM CO LTD), 6 August 1974 (1974-08-06) abstract</p>	1,8,17
A	<p>GB 868 463 A (MINNESOTA MINING AND MANUFACTURING COMPANY) 17 May 1961 (1961-05-17) page 1, line 32 - line 52</p> <p style="text-align: center;">-/-</p>	1-18

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

4 October 2000

Date of mailing of the international search report

13/10/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Schlicke, B

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>PATENT ABSTRACTS OF JAPAN vol. 1996, no. 07, 31 July 1996 (1996-07-31) & JP 08 073819 A (TORAY IND INC), 19 March 1996 (1996-03-19) abstract</p>	1-18
A	<p>US 4 861 408 A (KELBER JEFFRY A) 29 August 1989 (1989-08-29) cited in the application claims 1-3,16</p>	1-18
A	<p>US 3 252 880 A (MAGAT MICHEL ET AL) 24 May 1966 (1966-05-24) cited in the application example 8</p>	1-18

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 00/17457

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 49029613 B	06-08-1974	NONE	
GB 868463 A		DE 1247626 B FR 1211388 A	16-03-1960
JP 08073819 A	19-03-1996	NONE	
US 4861408 A	29-08-1989	NONE	
US 3252880 A	24-05-1966	BE 559514 A CA 960179 A GB 853970 A NL 128624 C NL 207550 A	31-12-1974

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)



Applicant's or agent's file reference 002672wo Me/tg	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US00/17457	International filing date (day/month/year) 23/06/2000	Priority date (day/month/year) 02/07/1999
International Patent Classification (IPC) or national classification and IPC C09J7/02		
Applicant 3M INNOVATIVE PROPERTIES COMPANY et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.
- ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand 11/11/2000	Date of completion of this report 05.11.2001
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Sperry, P Telephone No. +49 89 2399 8298 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/US00/17457

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, pages:
1-42 as originally filed

Claims, No.:

1-18 as originally filed

Drawings, sheets:

1/2-2/2 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/US00/17457

☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	12-16,18
	No:	Claims	1-11,17
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-18
Industrial applicability (IA)	Yes:	Claims	1-18
	No:	Claims	

2. Citations and explanations
see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:
see separate sheet

Re Item V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following document:

D1: DATABASE WPI Section Ch, Week 197435 Derwent Publications Ltd., London, GB; Class A18, AN 1974-62357V XP002149248 & JP 49 029613 B (SEKISUI CHEM CO LTD), 6 August 1974 (1974-08-06)

1. Document D1 relates to a pressure sensitive adhesive synthetic resin film comprising an adhesive composition which is applied to the face of a film of a synthetic resin such as polytetrafluoroethylene. Then the film is irradiated with ion rays. It follows that the subject-matter of claims 1, 5, 8 and 17 lacks novelty with respect to D1.
2. D1 does not mention that the fluorine-containing material or the pressure adhesive layer are crosslinked by the irradiation, however it can be assumed that irradiation of a polymer leads to crosslinking reactions. Therefore it seems that claims 2-4, 6, 7, 9-11 lacks novelty with respect to D1.

Re Item VIII

Certain observations on the international application

Claim 18 relates to a method in which the pressure adhesive layer or an intermediate layer is coated on the surface of the fluorine-containing material sheet which before has been irradiated. Therefore chemical bonds between the fluorine-containing material sheet and the pressure sensitive adhesive layer cannot happen.

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
US Department of Commerce
United States Patent and Trademark
Office, PCT
2011 South Clark Place Room
CP2/5C24
Arlington, VA 22202
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing:

11 January 2001 (11.01.01)

International application No.:

PCT/US00/17457

Applicant's or agent's file reference:

54888PCT8A

International filing date:

23 June 2000 (23.06.00)

Priority date:

02 July 1999 (02.07.99)

Applicant:

YAMANAKA, Keizo et al

1. The designated Office is hereby notified of its election made:



in the demand filed with the International preliminary Examining Authority on:

11 November 2000 (11.11.00)



in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer:

J. Zahra

Telephone No.: (41-22) 338.83.38

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C09J7/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C09J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DATABASE WPI Section Ch, Week 197435 Derwent Publications Ltd., London, GB; Class A18, AN 1974-62357V XP002149248 & JP 49 029613 B (SEKISUI CHEM CO LTD), 6 August 1974 (1974-08-06) abstract</p>	1,8,17
A	<p>GB 868 463 A (MINNESOTA MINING AND MANUFACTURING COMPANY) 17 May 1961 (1961-05-17) page 1, line 32 - line 52</p> <p style="text-align: center;">--- -/-- ---</p>	1-18



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents :

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- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

4 October 2000

Date of mailing of the international search report

13/10/2000

Name and mailing address of the ISA

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Fax: (+31-70) 340-3016

Authorized officer

Schlicke, B

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 00/17457

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 49029613 B	06-08-1974	NONE	
GB 868463 A		DE 1247626 B FR 1211388 A	16-03-1960
JP 08073819 A	19-03-1996	NONE	
US 4861408 A	29-08-1989	NONE	
US 3252880 A	24-05-1966	BE 559514 A CA 960179 A GB 853970 A NL 128624 C NL 207550 A	31-12-1974

XP-002149248

AN - 1974-62357V [35]

A - [001] 012 032 034 04- 040 041 046 047 050 051 055 056 061 062 063 064
066 067 074 076 077 081 082 087 117 122 165 231 246 255 257 259 27&
303 311 315 347 35& 359 431 435 438 443 473 477 532 597 600 609 668 688

CPY - SEKI

DC - A18 A81 G03

FS - CPI

IC - C09J0/00

MC - A12-A01 G03-B02A G03-B02B G03-B02D G03-B04

PA - (SEKI) SEKISUI CHEM CO LTD

PN - JP49029613B B 19740806 DW197435 000pp

PR - JP19660040897 19660622

XIC - C09J-000/00

AB - J74029613 An adhesive composition of synthetic resin (e.g. vinyl chloride or acetate, a natural rubber or styrene-butadiene rubber) and a cpd. to give it tackiness e.g. terpene resin (beta pinene) or rosin (abietic acid) is applied to the face of a tape of a synthetic resin film of relatively poor adhesiveness (e.g. polyethylene, polypropylene or polytetrafluoroethylene) and irradiating with ion rays.

IW - PRESSURE SENSITIVE TAPE CONSIST VINYL TYPE ADHESIVE SYNTHETIC RESIN FILM POLYETHYLENE

IKW - PRESSURE SENSITIVE TAPE CONSIST VINYL TYPE ADHESIVE SYNTHETIC RESIN FILM POLYETHYLENE

NC - 001

OPD - 1966-06-22

ORD - 1974-08-06

PAW - (SEKI) SEKISUI CHEM CO LTD

TI - Pressure-sensitive tape - consisting of a vinyl type adhesive and a synthetic resin film e.g. polyethylene